

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF MAY 17-18, 2001

Prepared on April 18, 2001

ITEM: 40

SUBJECT: Executive Officer's Report to the Board

Brief discussion of some items of interest to the Board follow. Upon request, staff can provide more detailed information about any particular item.

Watershed and Cleanup Branch Reports

**REGULATION SUMMARY OF
FEBRUARY/MARCH 2001**

[Corinne Huckaby 805/549-3504
and Maura Mahon 805/542-4642]

Orders

Reports of Waste Discharge Received	6
Requirements Pending	69
Inspections Made	92
*Self-Monitoring Reports Reviewed (WB)	409
*Self-Monitoring Reports Reviewed (CB)	72
Stormwater Reports Reviewed	10

Enforcement

Non-Compliance Letters Sent:	
NPDES Program	1
Non-Chapter 15 WDR Program	25
Chapter 15 Program	2
Unregulated	1
CAOs Issued	0
ACL Complaints	3
Notice to Comply (NTC)	0
Storm Water (NOV)	5
Unregulated (FTS's – Tanks)	5
Storm Water (ACL Complaints)	1

WATER QUALITY CERTIFICATIONS

[Corinne Huckaby 805/549-3504]

Conditional Certification is appropriate when a project may adversely impact surface water quality. Conditions allow the project to proceed

under an Army Corps permit, while upholding water quality standards.

The Office of Administrative Law (OAL) has given approval of the "rule making record" and proposed regulations to govern Water Quality Certification. The new regulations effect the following changes:

1. Delegate day to day certification action to the Regional Boards (EO). Multi-Region issues and water rights issues are still handled by State Board.
2. Implement a new fee structure. The new fees are: \$500 for standard certification and \$1000 per acre (up to 10 acres) for conditional certifications. There are three actions available, Standard Certification (\$500), Conditional Certification (\$1000/acre up to 10 acres), and Denial.
3. Revise the petition process to include aggrieved parties, not just the applicant.
4. Bring the program into better compliance with CEQA, permit streamlining, the Clean Water Act and Porter-Cologne.

In general, staff recommends "Standard Certification" when the applicant proposes adequate mitigation. Measures included in the application must assure that beneficial uses will be protected, and water quality standards will be met.

Staff will recommend "No Action" when no discharge or adverse impacts are expected. Generally, a project must provide beneficial use and habitat enhancement for no action to be taken by the Regional Board. A chart on the following page lists applications received through April 23, 2001.

WATER QUALITY CERTIFICATION APPLICATIONS RECEIVED FROM FEBRUARY 9 THROUGH APRIL 23, 2001.

Date Received	Applicant	Project Description	Receiving Water	Action Taken	Project Location
February 9, 2001	San Benito County PWD	Bridge Replacement Project	Arroyo Dos Picachos Creek	Standard Certification	Near Hollister
February 9, 2001	San Benito County PWD	Bridge Replacement Project	Santa Ana Creek	Standard Certification	Near Hollister
February 9, 2001	San Benito County PWD	Bridge Replacement Project	San Juan Creek	Standard Certification	Near Hollister
February 9, 2001	Curtis Development	Oak Creek Estates	Peterson Creek	Standard Certification	Buellton
February 9, 2001	Atascadero State Hospital	Install security fencing across creek	Unnamed tributary to Salinas River	Pending	Atascadero
February 13, 2001	Lucia Mar USD	Thompson Avenue Widening	Deleissigues Creek	Pending	Arroyo Grande
February 15, 2001	County of San Benito DPW	Coalinga Road Embankment Repair	San Benito River	Pending	Hollister
February 16, 2001	Santa Clara Valley Water District	Multi-Year Stream Maintenance Program	191 streams and 9 canals	Inc. letter sent	countywide
February 22, 2001	Russ Sheppel	Outpatient surgery center facility	wetland	Pending	Arroyo Grande
February 23, 2001	Moss Landing Harbor District	North Harbor Shoreline Protection	Pacific Ocean, Elkhorn Slough	Inc. letter sent	Moss Landing
February 28, 2001	Jean-Pierre Wolff	Cross Creek Embankment Erosion Control at Vineyards	Cross Creek tributary to West Corral de Piedra Creek	Pending	San Luis Obispo
March 6, 2001	Cold Canyon Landfill	Landfill Expansion	wetlands	Standard Certification	San Luis Obispo
March 6, 2001	Caltrans	Reconstruct slope along Highway 9	Toll House Gulch	Standard Certification	Santa Cruz
March 20, 2001	City of Santa Cruz Park and Recs Dept.	Jesse Street Marsh Habitat Restoration	wetlands	Pending	Santa Cruz
March 25, 2001	City Community Development Group	Construct Bike Trail for access to new Sports Park Facility	Uvas Creek; wetlands	Pending	Gilroy
April 6, 2001	City of Solvang	Water Well #5 Replacement	Santa Ynez River	Pending	Solvang
April 13, 2001	Venoco, Inc.	Incoming 10 inch Pipeline Support Repair	Pacific Ocean	Corps will regulate under RPG 63	Carpinteria
April 16, 2001	City of Gilroy	Church Street and Welburn Avenue Bridge Widening Project	Llagas Creek	Pending	Gilroy
April 18, 2001	Mike Miner	Miner's Hardware Creek Bank Restoration	Morro Creek	Pending	Morro Bay

LOW THREAT DISCHARGES AND WAIVERS

This section is for dischargers who have requested approval to discharge water that poses insignificant threat to water quality or for sites recommended for case closure (low risk sites where no further regulatory action is required). Consequently, we conditionally approved of these proposals. Conditions common to each approval are:

1. If you, the Regional Board, object to the proposal, an NPDES permit or waste discharge requirements will be prepared for the Board's consideration.
2. The discharger remains liable for any treatment system failure that results in significant discharge of pollutants.
3. We have a "low threat discharges" general permit for surface water discharges available, and the discharger may be required to file for coverage by that permit.

Site descriptions and specific conditions are listed below for each case.

California Cities Water – Coverage under General Permit for Discharges with Low Threat to Water Quality, Los Osos, Order No. 96-4 [Sorrel Marks 805/549-3695]

California Cities Water division of Southern California Water Company submitted a Notice of Intent for coverage under General Low Threat Permit, Order No. 96-4. The discharges proposed for authorization include those associated with regular operations of the community water supply system, as described below.

1. Untreated ground water discharged to storm drains in order to purge wells for sampling purposes. Discharges of this type would occur once every three years to monthly depending upon the well activity status and DHS sampling requirements.

2. Ground water discharged to storm drains during well development or reconditioning. Discharges would occur once every three to five years depending upon need. Settling tanks would be used to remove sediment prior to discharge.
3. Treated supply water flushed from the storage and distribution system to stormdrains. Flushing occurs approximately annually from a variety of sites throughout the system. Discharged water meets drinking water standards, but includes chlorine residual of 0.5 to 1.0 mg/l. Dechlorination would be accomplished at each discharge site and confirmed by field testing.
4. Iron/manganese filter backwash water discharged to detention basins. The backwash water is drinking water with iron and manganese precipitate, these components remain within drinking water standards.

Coverage under Waste Discharge Requirements Order No. 96-4, General Permit for Discharges with Low Threat to Water Quality, is appropriate provided compliance with the Basin Plan water quality objectives is assured. Permit conditions include periodic monitoring of the discharges to assure continued compliance.

California Cities Water – Orcutt Drinking Water Distribution System, San Luis Obispo County [Sandra Turshman 805/542-4640]

On April 17, 2001, California Cities Water was conditionally authorized to discharge under "Order No. 96-4, NPDES No. CAG993001, General Permit for Discharges with Low Threat to Water Quality." The proposed discharge will comply with Regional Board standards, prohibitions, and requirements to protect water quality.

The potential discharges are as follows:

Raw Groundwater Discharge from Water Supply Wells: Discharge results from purging of water supply wells to obtain representative water quality samples. Purge time is typically one to two hours, with flow rates ranging from

500-1,190 gallons per minute. The quality of the groundwater discharged will typically meet drinking water standards, with the exception of the Evergreen Well #1 and 2 and Sunrise Well #1, which have nitrate concentrations exceeding the nitrate Maximum Contaminant Level of 45 mg/L as nitrate. Groundwater will be discharged to the nearest storm water conveyance structure.

Well Redevelopment and Well Treatment: Existing wells may require reconditioning and redevelopment. During this purging, there is the potential for the discharge to be highly turbid for a short period of time. The discharged water is treated with a multi-baffled tank to allow settling of the suspended solids. Well redevelopment may occur at a frequency of once every 3 to 5 years. Discharge will be to an established storm water conveyance structure.

New Well Installation: Similar discharges from well redevelopment can be expected from new well installations. Discharged water will be treated with a solids control system that is equipped with a shale shaker, desander, and de-silter.

Distribution Flushing/Tank Dewatering: The Department of Health Services requires periodic flushing of water supply distribution systems. The quality of the water meets all drinking water standards but has low levels of chlorine for disinfection purposes. The water is dechlorinated prior to discharge. In addition to distribution system flushing, reservoirs associated with the Orcutt System will periodically require dewatering for routine maintenance. Flow rates will range from 700 to 1,000 gallons per minute up to 2 hours in duration.

This water will be discharged into existing storm water conveyance systems. A notice for the proposed actions was sent to all interested agencies and a public notice was published in the local newspaper to notify property owners in the vicinity of the discharge point. No substantive comment was received from the public.

California Cities Water – Edna Road/Rolling Hills Drinking Water Distribution System
[Sandra Turshman 805/542-4640]

On April 17, 2001, California Cities Water was conditionally authorized to discharge under "Order No. 96-4, NPDES No. CAG993001, General Permit for Discharges with Low Threat to Water Quality." The proposed discharge will comply with Regional Board standards, prohibitions, and requirements to protect water quality. The potential discharges are as follows:

Raw Groundwater Discharge from Water Supply Wells: Discharge results from purging of water supply wells to obtain representative water quality samples. Purge time is typically one to two hours, with flow rates ranging from 50-400 gallons per minute. The quality of the groundwater discharged will typically meet drinking water standards, with the exception of Lewis Lane Well #3, which occasionally exceeds iron and manganese secondary Maximum Contaminant Levels. These constituents are removed by an iron/manganese filter, which is discussed later in this item. Groundwater will be discharged to the nearest storm water conveyance structure.

Well Redevelopment and Well Treatment: Existing wells may require reconditioning and redevelopment. During this purging, there is the potential for the discharge to be highly turbid for a short period of time. The discharged water is treated with a multi-baffled tank to allow settling of the suspended solids. Well redevelopment of treatment may occur at a frequency of once every 3 to 5 years. Discharge will be to an established storm water conveyance structure.

New Well Installation: Similar discharges as from well redevelopment can be expected from new well installations. Discharged water will be treated with a solids control system that is equipped with a shale shaker, desander, and de-silter.

Distribution Flushing/Tank Dewatering: The Department of Health Services requires periodic flushing of water supply distribution systems. The quality of the water meets all drinking water standards but has low levels of chlorine for disinfection purposes. The water is dechlorinated prior to discharge. In addition to distribution system flushing, reservoirs associated with the Edna Road System will

periodically require dewatering for routine maintenance. Flow rates will range from 700 to 1,000 gallons per minute up to 2 hours in duration.

Iron/Manganese Filter Backwash: Due to periodic increases in iron and manganese concentrations in the water produced from Lewis Lane Well #3, the water is filtered to remove these constituents. Periodically, the filter requires back washing to remove the accumulated iron and manganese precipitate. The back washing procedure results in 8,400 gallons of back wash water. This water is used for irrigating the one-acre water treatment plant through an existing irrigation system.

A notice for the proposed actions was sent to all property owners within 300 feet of the discharge point according to a mailing list provided by California Cities Water for their comments, if any. No substantive comment was received from the public. Therefore, staff authorized this discharge under General Permit Order No. 96-4.

Former Chevron Service Station; 4000 Portola Drive, Santa Cruz; Santa Cruz County [Bob Hurford (805) 542-4776]

Staff recommends the discharge of treated ground water from the subject facility be regulated under Order No. 96-4, National Pollutant Discharge Elimination System (NPDES) No. CAG993001, Waste Discharge Requirements, General Permit for Discharges with Low Threat to Water Quality (General Permit) adopted by the Board on October 18, 1996. The proposed discharge must comply with Regional Board standards, prohibitions, and requirements to protect water quality.

Formerly the location of a Chevron Service Station, the site is developed commercial property. A basement dewatering sump exists beneath a commercial building on the property. Operation of the dewatering sump prevents flooding of the building's basement during periods of high ground water. It was discovered that petroleum hydrocarbons (PHCs) were released to the subsurface as a result of underground storage tank (UST) and product distribution system spills and leaks

related to the former Chevron Service Station. There is most likely a commingled contribution of PHCs from USTs formerly located at 4001 Portola Drive, across the street.

Chevron proposes to treat the sump discharge by filtering through three carbon canisters and discharge the treated ground water to the storm drain which ultimately drains to Monterey Bay. Treatment system redundancy, routine inspection, maintenance and confirmation sampling ensure the discharge will pose a low threat to water quality. Staff has revised Monitoring and Reporting Program (MRP) No. 00-102 to include monitoring and reporting requirements for the treatment system and discharge. MRP No. 00-102 will be used in conjunction with the General Permit MRP No. 96-4 to ensure the protection of water quality. Extracted ground water will be treated to drinking water standards prior to discharge and no adverse effects are expected.

A notification allowing for comment regarding this discharge was sent on January 26, 2001, to all interested parties living or owning property within 300 feet of the discharge location. The notification allows discharge to begin March 6, 2001. Staff has received no comment as of April 13, 2001.

Victory Gas & Food Corporation Site; 1615 San Juan Road, Hollister, San Benito County [Burton Chadwick (805) 542-4786]

On March 21, 2001, staff issued a letter of authorization to Victory Gas & Food to discharge treated ground water to the storm sewer and ultimately to San Benito River under the terms of the Waste Discharge Requirements - General Permit for Discharges with Low Threat to Water Quality (General Permit); Order No. 96-04, NPDES Permit No. CAG 993001. The ground water extraction and treatment system is designed to completely remove petroleum hydrocarbon contaminants including methyl tertiary-butyl ether (MTBE) from contaminated ground water prior to discharge.

On December 26, 2000, local residents and property owners, within 300 feet of the

discharge, were notified and given the opportunity to provide comments on the proposed treated water discharge and coverage under the General Permit. Staff received a comment letter from Mr. Michael Pekin, with the Law Offices of Michael Pekin representing West Gateway, Inc., requesting copies of reports showing the extent and location of contamination. Staff has provided Mr. Pekin with copies of past reports and has requested that Victory Gas and Food's consultant provide Mr. Pekin with copies of future reports.

Petroleum hydrocarbons including MTBE have leaked to soil and ground water beneath the Victory Gas & Food service station at 1615 San Juan Road. Victory Gas & Food is taking proactive measures to clean up the contaminated soil and ground water with the installation of a ground water removal and treatment system at the site. Ground water containing petroleum hydrocarbons will be removed from the subsurface with an extraction well located onsite. Contaminants will be removed from the extracted ground water via a three-stage process consisting of a Shallow-Tray air stripper and two granular activated carbon vessels connected in series prior to discharge. The initial treatment system flow rate will be approximately five gallons per minute and may be increased in the future to assure plume containment and effective ground water removal and treatment. Treatment system redundancy, routine inspection, maintenance and confirmation sampling ensure the discharge will pose a low threat to water quality.

Board staff issued a site specific Monitoring and Reporting Program, required by the General Permit, with Victory Gas & Food's letter of authorization. The monitoring program requires continuous monitoring of the volume and flow rate of the discharge. The treatment system is required to be sampled weekly during the first month of operation and monthly thereafter. Representative water samples are required to be collected prior to the treatment system, after the Shallow-Tray air stripper, between carbon vessels, and downstream of the final carbon vessel. Water samples are required to be analyzed for Total Petroleum Hydrocarbons as gasoline, BTEX

(benzene, toluene, ethylbenzene and xylenes), tertiary butyl alcohol, and MTBE. Annually, the discharge is further required to be sampled in September and analyzed for pH, total suspended solids, total dissolved solids, temperature, turbidity, and dissolved oxygen. In addition, quarterly monitoring of San Benito River upstream and downstream of the discharge point is required for: floating or suspended matter in the water; discoloration of the water; bottom deposits; visible films, sheens or coatings; fungi, slimes, or objectionable growths; and potential nuisance conditions. Quarterly reports are required to be submitted on the 30th day of January, April, July, and October.

Duke Energy Moss Landing Power Plant, Moss Landing, Monterey County; Coverage by the General Permit for Discharges with Low Threat to Water Quality (WDR 96-4) [David Schwartzbart, 805.542.4643]

On April 6, 2001, the Executive Officer issued General Permit Waste Discharge Requirements (WDR) 96-4 with revised Monitoring and Reporting Program (MRP) 96-4 to Duke Energy for new temporary discharges from the Moss Landing Power Plant into an existing permitted outfall to Monterey Bay. The two new discharge waste streams are 1) potentially contaminated dewatered groundwater and 2) concrete dust. They both discharge into conveyances leading eventually to outfall 002, which is regulated for discharge to Monterey Bay by existing WDR 00-041.

As part of modernization and construction of new power generators at its Moss Landing Power Plant, Duke Energy is installing underground conduits for the new cooling water system. Where conduit construction trenches pass through the saturated zone, groundwater must be dewatered, collected and disposed. Groundwater contamination exists at the plant in the trench vicinities and dewatered groundwater may thus be contaminated. The dewatered groundwater will be stored in portable tanks and sampled for all potential contaminants, with data compared to WDR 96-4 effluent limits essentially reiterated from WDR 00-041 (with the WDR 00-041 seawater/effluent dilution

ratio included), before discharge to piping leading to Monterey Bay.

The other new waste stream is concrete dust generated from cutting existing concrete conduits at connections with the new conduits. During cutting, the dust falls directly into the conduit flow leading to discharge to Monterey Bay and because the quantity of concrete dust is so low (roughly 115 pounds) compared to the conduit flow (hundreds of millions of gallons per day), no additional chemical monitoring for the concrete dust is required. To ensure adequate dilution, the dust may not be discharged into the conduit instantaneously, but over a period of at least eight hours during normal flow.

Quarterly reports are required for quarters in which there is discharge pursuant to WDR 96-4.

Waiver of Waste Discharge Requirements for Graniterock Company, Highway Concrete Grinding Salinas, Monterey County. [Martin Fletcher 805/549-3694]

Graniterock Company submitted a request to perform highway concrete grinding treatment, recycling, and disposal of concrete slurry wastewater. The concrete grinding operation will occur during a State Highway rehabilitation project in the months of April 2001 through June 2001. For this project, Graniterock Company will grind the first fraction of an inch from the concrete roadway surface with a water-cooled cutter and generate concrete slurry. The concrete slurry will be vacuumed into bulk transfer trucks and transported to Dolomite Materials at 407 Old Stage Road in Salinas to undergo settling and recycling.

The water recycling and settling operation will consist of a two part concrete structure. The largest initial chamber will serve as the primary settling chamber used to separate broken concrete and associated residue from the water. The smaller final chamber will collect water as decanted over a weir wall from the initial chamber. The water in the final chamber will be reused in the concrete grinding operation. At project completion,

concrete slurry wastewater shall either be disposed of with evaporation, or used in the production of new concrete. The recovered broken concrete material shall be recovered for reuse as construction baserock material.

Since the operation is short term and fully contained (no discharge) Regional Board staff believes water quality impacts associated with the water recycling and settling operation are minimal. On April 23, 2001, Regional Board staff granted Graniterock Company a "Conditional Waiver of Waste Discharge Requirements." Conditions include CEQA compliance and complete waste and wastewater containment. The Regional Board reserves the right to issue individual or general waste discharge requirements for this operation.

Waiver of Waste Discharge Requirements for Penhall Construction, Highway Concrete Grinding, King City, Monterey County [Tom Kukol 805/549-3689]

Penhall Construction proposes to rehabilitate 24.5 miles of Route 101 starting at the Salinas River Bridge in King City and extending southward on Route 101 to the Los Lobos Overcrossing. During that process the subcontractor proposes to grind ¼ inch or so from the concrete roadway surface with a water-cooled cutter. Over forty days, the project would have generated up to three million gallons of potentially high pH slurry. Negotiations between Penhall Construction and Regional Board staff resulted in a settling/recycling system whereby the slurry would pass through two plastic-lined, temporary ponds, then be recycled. The first pond would provide settling and the second pond would provide a sump to recycle the clarified water. At the end of the project, the settled fines would be incorporated into the crushing operation for aggregates and the remaining water would be either neutralized (if necessary) and discharged into the gravel pits, or taken to a permitted disposal facility.

Since the project is short term, Regional Board staff believes water quality impacts are minimal. Regional Board staff granted Penhall Construction a "Conditional Waiver

of Waste Discharge Requirements.” Conditions include CEQA compliance and complete waste and wastewater containment

Waiver of Waste Discharge Requirements for Union Asphalt, Highway Concrete Grinding, San Ardo, Monterey County [Tom Kukul 805/549-3689]

Union Asphalt proposes to rehabilitate Route 101 starting at 0.5 km north of North Bradley undercrossing and extending to 1.5 km south of San Ardo undercrossing. During that process the subcontractor proposes to grind ¼ inch or so from the concrete roadway surface with a water-cooled cutter. The project will generate a potentially high pH slurry. The contractor will process the slurry in a settling/recycling system whereby the slurry would pass through two plastic-lined, temporary ponds, then be recycled. The first pond would provide settling and the second pond would provide a sump to recycle the clarified water. At the end of the project, the settled fines would be incorporated into the crushing operation for aggregates and the remaining wastewater will be neutralized (if necessary) and used for the production of new concrete or hauled to the class II land treatment unit in Marina, California.

Since the project is short term and fully contained (no discharge) Regional Board staff believes water quality impacts are minimal. Regional Board staff granted Union Asphalt a “Conditional Waiver of Waste Discharge Requirements.” Conditions include CEQA compliance and complete waste and wastewater containment.

Waiver of Waste Discharge Requirements for Michael Fredericks Paving Company, Equipment Washrack, Atascadero, San Luis Obispo County [Tom Kukul 805/549-3689].

Michael Fredericks Paving Company proposes a washing facility at its equipment yard. The facility is located at 5750 San Benito Road in the City of Atascadero, San Luis Obispo County. The Discharger will wash construction equipment over a concrete pad, the wash water will be collected, treated in a

floatable/settleable unit, then discharged to a lined pond. The lined pond will be sufficiently sized to accommodate an estimated 50 gallons per day, plus rainfall. Collected grease and oil will be contained and disposed appropriately with a regulated waste oil disposal service.

Since the facility will be operated without discharge and waste by products will be contained and properly discharged Regional Board staff granted a “Conditional waiver of Waste Discharge Requirements.” Conditions include full waste and wastewater containment.

Waiver of Waste Discharge Requirements for Southcorp Wine Estates, Agricultural Equipment Washrack, Creston, San Luis Obispo County [Tom Kukul 805/549-3689]

The Southcorp Wine Estates, Inc., Camatta Hills Vineyard, submitted a request to construct and operate an agricultural equipment washrack, located at 3990 Ryan Road in the City of Creston, San Luis Obispo County. The primary activity conducted on the property is the production of wine. Agricultural equipment, such as tractors, harvesters, and soil tillage equipment, is commonly used to establish and maintain the vineyard's soil. Approximately four tractors and two harvesters (along with soil tillage equipment) are used in the fields. The equipment is occasionally washed to remove the accumulation of mud and organic debris. A wastewater treatment process has been proposed to treat the wastewater from the cleaning process and make it safe for use as a dust control agent. The cleaning process will occur on a covered concrete pad that slopes towards the center, where there is a trench drain with baffle. The drain and baffle will separate the majority of mud and heavy debris. Wastewater will enter a three-stage oil/water clarifier collection pit that will remove the remaining debris and oil. The treated water will then be pumped into two 1,000-gallon storage tanks where it can be later sprayed on vineyard roads for dust control. Water trailers will be used to transport the water from the storage tanks to the vineyard all weather roads. All contaminated solid materials will be properly disposed.

Since the project contains and recycles all wastewater, Regional Board staff granted Southcorp Wine Estates a Waiver of Waste Discharge Requirements.

Basin Plan Exemption for Septic Disposal on a Slope Greater than 30%, 39320 Old County Rd., Near Bixby Creek, Carmel, Monterey County [Matthew B. Thompson 805/549-3159]

On January 25, 2001, Regional Board staff granted an exemption to the Basin Plan criteria to install new onsite sewage disposal systems where the natural ground slope of the disposal area exceed 30 percent. The exemption is for a septic tank/leachfield system serving a proposed single-family dwelling at 39320 Old County Road, near Bixby Creek, Carmel. The system was approved by Monterey County Department of Environmental Health, and forwarded to this Regional Board for approval on December 20, 2000.

A detailed geotechnical investigation, that included percolation testing and slope stability analysis, determined that the proposed disposal area will not contribute to slope instability or surfacing of untreated effluent. In particular, the design of the proposed disposal area contains the following elements:

- A determination that no restrictive soil layers are present in the sloped disposal area;
- A backup leachfield system that meets all requirements of the primary leachfield;
- A pump system that will distribute each intermittent discharge of septic tank effluent to alternating trenches;
- The highest perforation of the distribution pipe in leachfield trenches will be deeper than a theoretical 30-degree slope from the toe of the slope.

In addition to the above, Regional Board staff has asked the applicant to 1) place the distribution pipe in leachfield trenches 6 feet or deeper to prevent effluent from surfacing on the slope; 2) install a backup power supply to

power the septic tank effluent pump during power outages; 3) maintain a backup pump and parts supply; and 4) retain the septic system design consultant to ensure compliance during installation. As a condition of approval, the applicant is required to submit a letter report one year after construction of the system that demonstrates whether or not the system is performing in accordance with its permitted design. Regional Board staff may inspect the septic tank/leachfield system at any time to evaluate compliance.

STATUS REPORTS

Identifying Sources of Bacterial Contamination in the Morro Bay Estuary [Shanta Duffield 805/549-3464]

As was discussed in the February 2, 2001 Executive Officer's Report, high levels of fecal coliform have been found in Morro Bay over the past several years. As a result, Department of Health Services has permanently closed certain shellfish harvest growing areas. Potential sources of this fecal coliform are leaking or failing septic systems, agricultural runoff, boating discharge, faulty wastewater treatment plant operations, domestic animal waste, and birds and wildlife (marine and terrestrial). In accordance with the Shellfish Protection Act of 1993, a Technical Advisory Committee (Committee) has been formed. The Committee is conducting a study of both wet and dry season contributions to the Bay to determine the nature, sources, scope and degree of this bacterial pollution.

Three additional components of the study were under consideration as of the last Executive Officer's Report. They include a third wet season sampling period, a third dry season study plan, and additional quality assurance measures to evaluate the quality of the data.

The Committee decided that a third wet season sampling period was needed to supplement the other two wet season events. Few fecal coliforms had been collected in the previous two wet season runs and consequently few DNA fingerprints were obtained. The

Committee reasoned that a third wet run would supplement the data. Results for fingerprinting have not been received as of the writing of this report. Regional Board and Cal Poly Staff completed sampling for this third wet event the second week of March 2001. Samples were taken from Bay and watershed sites; however, no runoff sites were collected because at the time of sampling, there was no runoff to be sampled.

The Committee decided to form a subcommittee to devise a third dry season study. The Committee decided this at the January 11, 2001 meeting. All members present at this meeting were invited to be part of this subcommittee. The subcommittee is comprised of Department of Health Services, Department of Fish and Game, Regional Board, State Board, and Cal Poly Staff.

After several subcommittee meetings and much discussion, the subcommittee decided upon a dry season plan. The focus of this study is to characterize station 13, which is the northern portion of the lease that has been closed year-round, and to characterize the freshwater seep input to the Bay. Station 13 will be broken down into nine sampling points in a "grid" format. Locations of these nine points will cover the area of station 13 as well as take into account channel versus mud flat flow. Twenty-five events will be sampled and tested for MPN (most probable number). This "grid" study will take place from June through October 2001. This grid sampling will help Department of Health Services better characterize the growing area and may allow them to reopen a portion of the lease if the data supports it. This study will also help us determine if channelized or mud flat areas are more susceptible to high levels of fecal coliform counts. The seep sampling will consist of gathering water from two seeps on 20 separate occasions. Collection of these 40 samples will be complete by August 31, 2001. The purpose of these samples will be to characterize sources of fecal coliform coming out of the seeps. DNA fingerprinting will be performed on all seep samples. The Committee hopes that these dry season numbers will give us a better idea of what is coming out of the seeps and will help us compare these sources of coliform with station

13 to see if they are related. This dry season study design will be presented to the Committee April 24th for final comments and suggestions.

Lastly, the Committee was proposing additional quality assurance measures to further evaluate the quality of the data. These changes were put in place during the third wet run and expanded our previous plans to learn how many strains one can safely examine from a single sample without redundancy (i.e. collecting the same strain twice). Three out of the six sediment samples had 10 strains isolated instead of the two previously stipulated. Similarly, 10 out of the 100 water samples had 10 strains isolated instead of the two previously stipulated. All of the oyster samples from the third wet run had 10 strains isolated (if possible) so as to increase the number of strains we have from oysters. As was stated in the last report, the purpose of these measures is to increase the statistical accuracy of the previous quality assurance efforts and to transfer the further understanding of the DNA fingerprinting methodology to other watersheds and regions state-wide.

Cal Poly State University will present the results from the entire study to the Committee October 15, 2001. There will be a period of public comment afterward and they will present the final report January 31, 2002. The study results will aid in the development of the Total Maximum Daily Load for Morro Bay pathogens. The data obtained during this time period will help the Regional Board determine what types of action to take to protect the beneficial uses of the Bay.

General Waste Discharge Requirements in Los Osos [Sorrel Marks 805/549-3695]

At its March 31, 2000 meeting, the Board approved General Order No. 00-12, Waste Discharge Requirements for Residential On-site Wastewater Systems within the Bayview Heights and Martin Tract Areas of Los Osos, San Luis Obispo County. Since adoption of General Order No. 00-12, ten single family residential projects have filed Notices of Intent (applications) for coverage under the General Order. Each of the applicants' projects

complies with the criteria specified in General Order No. 00-12 and has been approved for coverage under the Order.

Buena Vista Mines, Inc., San Luis Obispo County [Gerhardt Hubner 805/542-4647]

Site Conditions

Staff conducted inspections at the Buena Vista and Klau Mines on January 11th and March 26, 2001. These inspections were made with on-site caretaker Mr. David Sweeney, who is operator under contract to the United States Environmental Protection Agency (U.S. EPA). Observations from those inspections:

Buena Vista Mine: The large rainfall storm events in February caused significant slumping along the banks of the valley that use to contain the former retort pile. Several new acid mine drainage seeps have appeared at several locations at the Buena Vista mine. Some of the more significant seeps are running down the valley into a lower sedimentation basin. Unfortunately no treatment of this water was taking place (at the time of March inspection) prior to the water entering the drainage channel that leads to Las Tablas creek. All sumps and the collection gallery downstream of the main shaft appeared to be working. The sedimentation basins appeared to have done exactly what they were constructed to do. On-site sediment is being captured and thus any mercury bearing sediment is being retained on-site vs. being transported to nearby surface waters. The hydroseeding that took place last fall has done well, and now replaced with grasses on the main mine waste repository and former Western Overburden pile.

The acid mine drainage collection pond is several feet from being full. The water appeared bluish/green in color, most likely due to residual lime still residing at the bottom of the pond. Mr. Sweeney indicated that he planned to treat and thus draw down the volume of water in the pond. Staff related its concerns to Mr. Sweeney (and later to U.S. EPA staff) regarding the lack of collection and treatment with the acid mine drainage running the former retort pile valley.

Klau Mine: The Klau mine also was affected by the February storm events. The storms caused large trees to be uprooted and at several locations throughout the site. Some minor erosion was also evident at the Klau mine. The sedimentation basin constructed in the main drainage also did its job of capturing sediment for upstream areas. It will need to be cleaned out this summer in preparation of next winter. The mine waste repository and the site overall held up extremely well in spite of the large rain event. It is uncertain whether U.S. EPA will drain the reservoir due to limited remaining funds. The acid mine drainage orange colored seep at the intersection of the Klau Branch and Cypress Mtn. Road is still viable, although diluted due to upstream runoff.

U.S. EPA Actions

Staff has been told that U.S. EPA intends to mobilize at the site the first or second week in May, weather permitting. U.S. EPA is waiting for sufficient time for the rainy season to pass, and soils on-site to dryout before commencing site-wide earthwork. U.S. EPA also intends to complete the several of the remaining remedial actions contained in the Unilateral Administrative Order issued to Buena Vista Mine Inc. (BVMI) and Mr. Harold Biaggini if sufficient funds remain.

Long term operation and maintenance of the facilities still remain an issue. U.S. EPA has indicated that they may not be able to fund any more remedial or maintenance activities (such as caretaker and operating the acid mine treatment facility) past July of this year. U.S. EPA staff has also told Regional Board staff that it intends to seek National Priority Site Listing for both these mines sites.

BVMI Report Submittal, dated July 2000

In July of 2000, a report entitled "Baseline Information or Characterizations and for Water Quality Management, Planning and Decisions Affecting BVMI Property in the Las Tablas Creek Watershed, San Luis Obispo County, California - July 7, 2000 was sent to this office by consultants for Mr. Biaggini and BVMI. The preparation of this report was not

ordered by any Regional Board directive or U.S. EPA. BVMI, and attorneys for BVMI solely undertook the report preparation. The purpose of the report is to refute conclusions contained in the "Clean Lakes Assistance Program for Lake Nacimiento, dated July 1993". This report was prepared by researchers from the Coastal Resources Institute at California Polytechnical University, San Luis Obispo, and was funded under the U.S. EPA Section 314 Clean Lakes Grant Program. The study was also conducted under the guidance of a Technical Review Committee. A draft report and public comment period were part of the process before the report was finalized. It is should be noted that eight years have since passed since this report was finalized, with little or no input from Mr. Biaggini, BVMI, its consultants, or their attorneys until now.

A limited Regional Board staff review of the July 2000 BVMI report shows at least one factual mistake, and at two key misconceptions which resulted in the report reaching flawed conclusions.

Las Tablas Metal TMDL

On April 6th by phone, and on April 9, 2001 by letter, Mr. Harold Biaggini contacted staff regarding a draft TMDL report listed on the Regional Board's website. Staff sent out on April 13, 2001 a copy of the TMDL report with a qualifying cover letter. This report is considered an internal agency draft, and thus should not be used or considered for any other purposes other than discussion between staff of the Regional Board and U.S. EPA. In addition, neither this Regional Board nor U.S. EPA adopted this document in any form.

Regional Board staff is currently revising the draft TMDL report in response to technical review comments made by U.S. EPA staff, improved understanding of methodology for estimating metals loading, and application of the California Toxics Rule. The revised TMDL report will be substantially modified from the draft report, and will include an implementation and monitoring plan. Regional Board staff will circulate the revised TMDL report to interested parties for comment (anticipated to be Summer of 2001)

prior to preparing a final TMDL report and presenting it to the Regional Board.

City of Pismo Beach, San Luis Obispo County [Scott Phillips 805/549-3550]

On March 28, 2001, staff member Scott Phillips and Executive Officer Roger Briggs attended a City of Pismo Beach town hall meeting to decide the future of The City's wastewater treatment plant. Roger spoke to the City Council about the City's need to improve their compliance with the discharger permit and the high cost of past, and potential future enforcement actions regarding the City's current treatment system. The City received mandatory minimum penalties of \$15,000 last July for multiple effluent violations and faces even more during this July's penalty tabulation. The City's current 45 year old plant is nearing capacity and is expensive to maintain due to old and inefficient equipment. With the Council divided on the issue, the final decision was postponed to a future meeting. On Wednesday, April 18, 2001, the City voted to build a new \$9 million wastewater treatment plant. The City Council agreed to design the plant so it can handle all development now allowed within the city boundaries plus two annexations. The collection system is also undergoing extensive upgrades to eliminate persistent overflows and spills. This action was initiated in part as a response to a 1998 Cleanup or Abatement Order (98-83) which required a system review and an updated master plan for the City's wastewater treatment system. The new plant is scheduled for completion in January 2004.

Sewering of Carmel Highlands, Monterey County [Matthew B. Thompson 805/549-3159]

Background - Recently, discussions between interested groups have increased regarding the potential connection of the Carmel Highlands to the Carmel Area Wastewater District's treatment facility. The Carmel Highlands is a Monterey County neighborhood located on the cliff shore of Monterey Bay National Marine Sanctuary (MBNMS), just south of Point

Lobos State Reserve. The Highlands area includes the Highlands Inn and Highlands Sanitary Association, which have NPDES permits issued from this Regional Board. The Highlands Sanitary Association treatment system was granted a two-year extension of their NPDES permit at this Regional Board's March 23, 2001 meeting. The majority of homes in the Highlands utilize septic systems for wastewater disposal. Representatives of Highlands Association (a limited group of Highlands homeowners) and the Carmel Area Wastewater District have expressed interest in pursuing a sewer project to coincide with the Point Lobos State Reserve sewerage. Regional Board staff is seeking the cooperation and support of Monterey County, and is providing information to the project's proponents regarding the availability of State grants and low-interest loans.

Existing Septic System Findings – The December 1979 *Draft Carmel Sanitary District Areawide Facilities Plan, Carmel Valley/Highlands Study Environmental Impact Report* (a.k.a. the "EIR") states:

"Septic tanks with leach fields are also used throughout the Carmel Highlands as the method of wastewater disposal. The geology of the area is such that there is a very thin layer of soil underlain by hard granitic rock. This geology is not very suitable for septic systems because discharge from septic tanks cannot be adequately filtered and treated by the soil. Most of the lots in the Highlands which can safely accommodate septic systems have already been built upon. Even some of these have experienced septic tank failures; raw sewage has surfaced above ground or has been discharged directly into the ocean. Many of the remaining lots cannot accommodate septic systems because of insufficient soil layer, inadequate size, or slopes that are too steep. The only means of providing sewerage services to new sites with inadequate facilities is to collect the wastewater and treat it somewhere else, or to combine lots so that there would be enough land for an adequate drainage field".

Monterey County Department of Environmental Health (DEH) staff states that many developed lots in the Highlands are not suitable for on-site disposal of septic effluent. DEH has the frustrating task of encouraging construction of secondary leachfields (in order to comply with Basin Plan recommendations) on properties that are not even suitable for one leachfield, let alone another. However, DEH emphasizes that hard evidence does not exist that existing septic systems are threatening public health.

Mr. Edward Vaughn, of the Highlands Sanitary Association, is working with Dr. Robert Curry, of CSU Monterey Bay, to study the Wildcat Creek watershed (in which the Highlands is located). They've found that Wildcat Creek flows year-round, while other nearby creeks dry up. Mr. Vaughn believes that septic systems may be supporting the flow. They are performing bacteriological sampling to support this hypothesis and will report their results to Regional Board staff.

Monterey County and this Regional Board are party to a Memorandum of Understanding (a.k.a. "MOU") concerning the regulation of individual sewage disposal systems. The MOU primarily addresses the regulation of new systems. Regional Board staff has confidence that, with respect to the regulation of new systems, Monterey County is performing well. However, the MOU does not specifically address investigations and responses to failing systems.

Support - In a February 13, 2001 meeting held at the Regional Board office, representatives of the Highlands Association, Highland Sanitary Association, and the Tickle Pink Inn expressed their support of a sewer project, and have begun to garner the support of the Carmel Highlands community. Furthermore, Mr. Ray von Dohren, General Manager of the Carmel Area Wastewater District (CAWD), gave CAWD's support in his January 22, 2001 letter, which states:

"The District has the capacity and is capable and willing to provide treatment service to the Highlands area should this area elect to be served."

...The District and the Department of Parks and Recreation are willing to permit the placement of a section of pipe in the trench to be dug for the Point Lobos Reserve project. This pipe could be used in the future to serve the Highlands area.”

CAWD has offered to provide engineering assistance to the project proponents, but emphasizes that there is no funding mechanism that permits using existing ratepayer revenue for projects outside the current district.

Ms. Sally Reed, Monterey County Administrative Officer, writes in her January 3, 2001 letter (Attachment 1): “The County has not initiated an effort to sewer Carmel Highlands and has no plans to do so.” Her justification is that County is complying with the Memorandum of Understanding between the County and this Regional Board, and “...existing septic systems in the Carmel Highlands area are functioning and not causing public health problems.”

Funding Assistance - Carmel Highlands may be eligible for various grants and/or low-interest loans through the State Revolving Fund (SRF). Before the Carmel Highlands community is eligible for any State grant/loan dollars, they must organize a viable sanitary district, which may require a vote. If Monterey County acknowledged that septic systems in the Highland's may be failing, the likelihood that the proposed project would receive State grant/loan dollars would increase.

What's Next? – The conceptual sewer project scope is not well defined. The scope ranges from sewerage just the Highlands Sanitary Association (which includes the Tickle Pink Inn and 12 homes) to sewerage the entire Carmel Highlands. Rough cost estimates of the latter are five to ten million dollars. Considering the political makeup of the community, and the cost, sewerage of the *entire* community is not likely. Based on perceived support by Tickle Pink Inn and the Highlands Sanitary Association, and pressure from this Regional Board, sewerage of the Highlands Sanitary Association and Tickle

Pink Inn is realistic and feasible. Inclusion of the Highlands Inn and the homeowners who are willing to collectively pay for sewer laterals to their homes is also feasible. The breadth of scope of the sewer project depends on the support of the Highlands Inn, Tickle Pink Inn, and the Highlands community, since they will provide the bulk of the project's cost. In June, Regional Board staff will attend a public meeting in Carmel to discuss this matter. Most of the organizations discussed here will be represented. Regional Board staff plans to inform the potential projects proponents on the details of Proposition 13 grants, SRF loans, and the requirement to organize a viable sanitary district. Staff will report to the Regional Board in future status reports the meeting's outcome and any progress in this matter.

Cleanup Branch Reports

Corrective Action Plan Approvals

Staff regularly provides the Board with brief overviews of corrective action plans for underground tank cleanup cases. These reports are intended to keep the Board apprised of proposed cleanup activities as well as to comply with public notification requirements of the California Code of Regulations, Title 23, Chapter 16, Section 2728. Under the public notification requirements, anyone may request review of information and decisions concerning the corrective action plan and the Board may hold a public meeting when requested, if there is sufficient public interest in the plan.

Abbreviations commonly used for these cases:
TPH - Total Petroleum Hydrocarbons
TPHd - TPH measured in the carbon range of diesel
TPHg - TPH measured in the carbon range of gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Xylene (components of gasoline)
MTBE - Methyl Tertiary Butyl Ether (gasoline oxygenate additive)
DCA or 1,2, DCA - dichloroethane (gasoline additive)

DCE - dichloroethylene (gasoline additive)
PCE -tetrachloroethylene or perchloroethylene
(perc - a solvent)
TCE - trichloroethylene (a solvent)
TCA - trichloroethane (a solvent)

Ultramar Beacon Station No. 734, 2202
Mission Street, Santa Cruz; Santa Cruz
County [Bob Hurford (805) 542-4776]

This site is an operating gasoline service station. Due to increasing concentrations of MTBE in onsite monitoring well MW-2, Regional Board staff directed (letter dated August 1, 2000) Ultramar Beacon to implement corrective action. The most recent sampling event indicated MTBE was present at a concentration of 10,000 micrograms per liter in a groundwater sample taken from MW-2. Ultramar Beacon proposes to implement in-situ soil vapor extraction for soil cleanup and air-sparging in conjunction with groundwater extraction to remediate groundwater at the site. The primary remediation goals for the dissolved phase plume of benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE are based on State maximum contaminant levels for drinking water. Implementation of remedial work includes utilizing the onsite vapor extraction wells, installing a minimum of three air sparge wells, and installing two groundwater recovery wells. Extracted groundwater will be pumped to a holding tank, processed through a diffused aeration tank or air-stripper and granular activated carbon canisters, then discharged to the sanitary sewer

Citgo Petroleum, Highway 1 at Highway 129,
Watsonville, Santa Cruz County (Truck Spill)
[Matthew Keeling (805) 549-3685]

On October 2, 1995, an 8,000-gallon fuel truck transporting gasoline overturned on the highway median between the north and south bound lanes of Highway 1 just south of the Highway 129 interchange in Watsonville. Approximately, 4,587 gallons of fuel product were recovered and an estimated 3,413 gallons of product were lost to the subsurface. Approximately 1,278 cubic yards of impacted

soil was subsequently excavated from the spill site.

Multiple soil borings and quarterly monitoring from five dedicated monitoring wells indicate the petroleum hydrocarbon, including MTBE, plume is localized primarily within the highway median. Tight silts and clays predominantly underlay the spill site, and groundwater is encountered at depths of between two to ten feet below ground surface and flows predominantly in a north/northwesterly direction at a relatively flat gradient of 0.001 feet/foot. Total petroleum hydrocarbons as gasoline and MTBE within spill area monitoring wells were detected at levels of up to 160,000 micrograms per liter ($\mu\text{g/L}$) and 61,000 $\mu\text{g/L}$, respectively, during the September 28, 2000, monitoring event. Several agricultural and industrial wells are located within a half mile of the site to the northwest; however, access and utility restrictions along with apparent MtBE plume stability have precluded the implementation of full-scale corrective action.

Oxygen Releasing Compound (ORC) socks were placed in selected monitoring wells from 1996 to 1999 to stimulate passive biological remediation of petroleum hydrocarbons in soil and groundwater. ORC use was ceased in 1999 due to only limited reductions in dissolved petroleum hydrocarbons in site monitoring wells. CITGO Petroleum Corporation's consultant has recently proposed conducting an extended 120-hour Dual-Phase Extraction test to reduce the mass of petroleum hydrocarbons, including MTBE, in soil and groundwater beneath the site, and to evaluate the process for future remedial action on a quarterly basis. The extraction process will simultaneously remove petroleum hydrocarbon vapor and impacted groundwater from beneath the spill site for onsite treatment and disposal. Petroleum hydrocarbon vapors will be destroyed by catalytic oxidation under permit by the Monterey Bay Unified Air Pollution Control District. Treated groundwater will potentially be discharged to an adjacent storm drain tributary to the Pajaro River within the highway median under this Board's General Permit for Discharges with a Low Threat to Water Quality.

Beacon Station No. 400, 1597 Freedom Blvd.,
Watsonville, Santa Cruz County; [Matthew
Keeling – (805) 549-3685]

Beacon (Ultramar, Inc.) Station No. 400 is an operating gasoline service station located on the southwest corner of Sydney Avenue and Freedom Blvd in northern Watsonville. Regional Board staff has recently become aware of two nearby active City of Watsonville municipal water supply wells. The City of Watsonville Water Works Facility is directly adjacent to and south of the subject site at 1509/1521 Freedom Blvd. Two municipal wells, Well No. 1 and Well No. 5, are approximately 400 feet and 150 feet from the Beacon Station, respectively. Two covered and lined earthen berm surface reservoirs with storage capacities of 500 thousand gallons and 5 ½ million gallons are also present on the Water Works property. Ongoing groundwater investigation activities indicate petroleum hydrocarbons, including MTBE have migrated in shallow groundwater onto the Water Works Facility property. Subsequently, Regional Board staff directed Ultramar to implement an Interim Corrective Plan to be conducted during additional site investigation activities for the development of a full-scale corrective action plan.

Ultramar, Inc.'s consultant proposes conducting interim monthly Dual-Phase Extraction (extraction) from monitoring wells MW-2, MW-3 and MW-6 adjacent to and on the City of Watsonville Water Works Facility property to remove impacted groundwater and hydrocarbon vapors from the subsurface. Dual-Phase Extraction will be conducted using a mobile high-vacuum dual-phase soil vapor and liquid extraction system provided by Alton Geoscience, Inc. Hydrocarbon vapors will be destroyed via a trailer mounted catalytic oxidation unit and extracted groundwater will be stored on-site pending characterization for pickup and offsite disposal. The analysis of recovered groundwater and vapor samples, and extraction radius of influence monitoring in conjunction with regularly scheduled quarterly groundwater monitoring will be reviewed to evaluate interim extraction effectiveness.

Subsequently, the evaluation of the interim corrective action activities and ongoing investigation work will be used to develop additional recommendations for full-scale corrective action.

Chevron Service Station #9-1156, 251 Grand
Avenue, Arroyo Grande [Sheila Soderberg
805/549-3592]

Chevron Products Company (Chevron) owns and operates service station #9-1156 located at 251 Grand Avenue in Arroyo Grande. Arroyo Grande Creek is located southeast of the service station property. During replacement of the underground storage tanks (UGTs), fuel dispensers, and associated piping in 1994, petroleum hydrocarbon constituents were detected in soil samples surrounding the former product lines and dispenser islands. In September 1994, soil samples were collected from five locations. In November 1995, four ground water monitoring wells and three vapor extraction wells were installed. In April 1996, the case was transferred from San Luis Obispo County Division of Environmental Health to Regional Board purview. Since 1996, Chevron has performed quarterly ground water monitoring at the subject facility. In July 1997, three additional ground water monitoring wells were installed. In response to the Regional Board's November 15, 1999 letter, Chevron's consultant, Holquin, Fahan & Associates, Inc. (HFA) submitted their January 25, 2000 *Work Plan/Interim Corrective Action Plan* detailing installation of two new wells (MW-8 and MW-9) adjacent to Arroyo Grande Creek, extraction of ground water from four wells using a vacuum truck for a six week period, evaluation of the extraction events, and surface water sampling of Arroyo Grande Creek to evaluate if the fuel additive MTBE is impacting the creek.

During the April 26, 2000 sampling event, surface water samples from Arroyo Grande Creek did not contain detectable concentrations of MTBE. In June 2000, wells MW-8 and MW-9 were installed on private property adjacent to the creek. During the June 27, 2000 ground water sampling event, MW-8 and MW-9 contained 106 micrograms per liter (ppb) and 1010 ppb, respectively. As

part of interim corrective action, Chevron began weekly ground water removal from four wells from April through May 2000, removing approximately 1,800 gallons with offsite disposal at a water treatment facility in Long Beach, CA. After a review of pre- and post-ground water extraction events, no apparent reduction in petroleum hydrocarbon constituents, including MTBE, were noted in the extraction wells and the weekly pump-outs were discontinued. In the Executive Officer's November 17, 2000 letter, Chevron was directed to continue collection and analysis of surface water samples from Arroyo Grande Creek until a permanent cleanup system is installed.

On January 3, 2001, HFA submitted another Work Plan and Interim Corrective Action Plan (ICAP) proposing to install and perform an aquifer test on extraction well MW-10, located adjacent to Arroyo Grande Creek. Based on the results of the aquifer test, Chevron will design a ground water extraction system. In addition, Chevron will construct and operate a soil vapor extraction (extraction) system utilizing existing vapor wells V1 through V3 and ground water monitoring well MW-1, located near the former product lines and dispenser islands. Petroleum hydrocarbon vapors will be destroyed using thermal or catalytic oxidation processes in the SVE system. In the Executive Officer's March 1, 2001 letter, Regional Board staff concurred with the proposed ICAP and requested a schedule for construction of the extraction system, performance of aquifer testing, and ground water extraction system design and implementation.

Chevron Station No. 9-0160, 222 Main Street, Watsonville, Santa Cruz County; [Matthew Keeling – (805) 549-3685]

Chevron Station No. 9-0160 is an operating gasoline service station located in downtown Watsonville on the southeast corner of Main Street and Central Avenue. An active City of Watsonville municipal water supply well, Well No. 10 (City Well) is approximately 880 feet west/southwest and potentially down gradient of the petroleum release. The proximity of the municipal water supply well and MTBE concentrations of up to 3,330

micrograms per liter ($\mu\text{g/L}$) (October 19, 2000 monitoring event) make this case a Rank A MTBE site. Up to 410,000 $\mu\text{g/L}$ – total petroleum hydrocarbons as diesel (TPH-d), 127,000 $\mu\text{g/L}$ -TPH as gasoline, and 13,600 $\mu\text{g/L}$ -benzene were also detected in selected site monitoring wells during the fourth quarter 2000 monitoring event. Subsequently, Chevron has been diligent in conducting extensive site investigation activities to delineate petroleum hydrocarbon [including (MTBE)] contaminated soil and groundwater for the implementation of a Corrective Action Plan. Additional site background information can be found in the November 29, 2000 Board Meeting Executive Officers Report.

Chevron has submitted a detailed design and implementation plan for a soil and groundwater treatment system at the subject site. The proposed system design incorporates the use of five air sparging wells, five soil vapor extraction wells, and one groundwater extraction well at the site. Extracted groundwater, which also may contain low levels of chlorinated solvents from unidentified sources in the site vicinity, will be treated onsite and discharged to the sanitary sewer/Watsonville Wastewater Treatment Plant under the authority of the City of Watsonville. Extracted petroleum hydrocarbon vapors will be destroyed via catalytic oxidation as regulated under permit by the Monterey Bay Unified Air Pollution Control District

Scotts Valley Dry Cleaners, 272-A Mount Herman Road, Scotts Valley, Santa Cruz County [Wei Liu 805/542-4648]

Scotts Valley Dry Cleaners submitted a Corrective Action Plan (CAP) in March 1998 for cleanup of the solvent constituents impacting soil and groundwater under and near the site. The CAP was partially approved and implemented to complete the site characterization and finalize the selection of appropriate remedial alternatives. In December 2000, the Discharger's new consultant submitted a revised CAP, proposing to perform soil and groundwater remediation with air sparging/soil vapor

extraction and placing oxygen releasing compounds in the four most impacted monitoring wells. In the case that the air sparging/soil vapor extraction alternative is ineffective to cleanup the contamination, groundwater extraction and treatment will be conducted. A tentative CAP implementation schedule was also included. The revised CAP was approved on January 26, 2001, and is being implemented in accordance with the implementation schedule.

Former AAMCO Shop, and Juan's Auto Repair Shop, 640 Main Street, Watsonville, Santa Cruz County; [Matthew Keeling – (805) 549-3685]

A recent Phase I due diligence investigation for the subject property documented the removal of three underground fuel storage tanks (UST) in 1987. Subsequently, a lack of documentation regarding the removal and closure of the three former USTs prompted a Phase II soil and groundwater investigation at the subject site. The September 18, 2000 Phase II investigation identified three separate areas of soil contamination and two areas of groundwater contamination consisting of gasoline constituents, and motor and hydraulic oils. Groundwater samples contained up to 88,000 micrograms per liter ($\mu\text{g/L}$) total petroleum hydrocarbon as diesel 44,000 $\mu\text{g/L}$ TPH as gasoline, 9,100 $\mu\text{g/L}$ hydraulic oil, and 2.7 $\mu\text{g/L}$ benzene. None of the soil or groundwater samples detected MTBE at reportable levels. Therefore, the property owner is proposing the limited excavation of impacted soils as feasible from the three identified areas of soil contamination, with potential pumping of groundwater from the open excavations if encountered. The installation of three dedicated monitoring wells is also proposed for the verification and delineation of petroleum impacts to groundwater via quarterly monitoring.

Former Exxon Mobil #7159, 120 Aviation Way, Watsonville, Santa Cruz County; [Matthew Keeling – (805) 549-3685]

The former aviation fueling facility is located at the Watsonville City Airport. Fueling

operations were reportedly discontinued in 1986 and two USTs were subsequently removed in 1990. From 1991 to 1995, Exxon Mobil implemented a soil vapor and groundwater extraction system at the site. Groundwater extraction was discontinued in 1995 in favor of soil vapor extraction. The soil vapor extraction system has removed an estimated 3,563 pounds of hydrocarbons since startup. Treatment system and groundwater data indicate the soil vapor extraction treatment system has reached limiting asymptotic levels of petroleum hydrocarbon removal; however, dissolved concentrations in ground water have not decreased correspondingly. Total purgeable petroleum hydrocarbon and benzene concentrations in groundwater were detected at levels of up to 9,460 micrograms per liter ($\mu\text{g/L}$) and 1,790 $\mu\text{g/L}$, respectively, in selected monitoring wells during the fourth quarter 2000 monitoring event. Subsequently, ExxonMobil proposed augmenting the existing treatment system with the addition of seven air sparging wells and two additional soil vapor extraction wells. The locations of the proposed treatment system wells were based on a passive soil vapor survey conducted in December 2000

Beacon Station No. 3737, 1180 Main Street, Watsonville, Santa Cruz County; [Matthew Keeling 805/ 549-3685]

Beacon (Ultramar, Inc.) Station No. 3737 is an operating gasoline service station located east of the intersection of Pennsylvania Drive and Main Street in Watsonville. Total petroleum hydrocarbons as gasoline, benzene and MTBE were detected in shallow groundwater (33 to 40 feet below ground surface) at levels of up to 11,000 micrograms per liter ($\mu\text{g/L}$), 3,900 $\mu\text{g/L}$, and 3,600 $\mu\text{g/L}$, respectively, in selected monitoring wells during the November 7, 2000 sampling event. Relative concentrations of these constituents have both increased and decreased in various monitoring wells, and trends indicate petroleum hydrocarbons, including MTBE, are potentially migrating off-site. The closest City of Watsonville municipal water supply well is approximately 4,100 feet south/southeast of the site. The closest known well is a private irrigation well

approximately 1,320 feet southeast of the site. Neither of these wells appear to be immediately threatened. Regional Board staff directed Ultramar to implement an interim corrective plan to be conducted during additional site investigation activities for the development of a full-scale corrective action plan.

Subsequently, Ultramar proposes the installation of an additional upgradient monitoring well, a 4-inch diameter groundwater extraction well and an air sparging test well, and feasibility studies to review potential remedial alternatives for full-scale corrective action. The feasibility studies consist of conducting a Dual-Phase Extraction (extraction) test, groundwater pumping test, and an air sparging test. In addition, Ultramar proposes conducting interim corrective action via monthly extraction from monitoring wells MW-1, MW-4 and the proposed extraction well (EW-1) to remove impacted groundwater and hydrocarbon vapors from the subsurface. Interim extraction will be implemented concurrently with the feasibility testing and development of a full-scale corrective action plan. extraction will be conducted using a mobile high-vacuum soil vapor and liquid extraction system. Hydrocarbon vapors will be destroyed via a trailer mounted catalytic oxidation unit and extracted groundwater will be stored on-site pending characterization for disposal. The analysis of recovered groundwater and vapor samples, and extraction radius of influence monitoring in conjunction with regularly scheduled quarterly groundwater monitoring will be reviewed to evaluate interim extraction effectiveness. Subsequently, the interim corrective action activities and feasibility testing will be evaluated to develop a full-scale corrective action plan

Katch-Go Service Station, 1294 Grand Avenue, Arroyo Grande [Sheila Soderberg 805/549-3592]

In 1988, a leak in the turbine from the former underground storage tanks (tanks) was discovered at this site. In Fall 1989, the tanks were removed and approximately 300 cubic yards of soil excavated and aerated onsite. A

new tank system was installed east of the former tanks. Under the purview of San Luis Obispo County Division of Environmental Health (SLO DEH), seven borings and three soil vapor extraction wells were drilled at the subject site to delineate the extent of petroleum hydrocarbon constituents in soil. From July 1990 until April 1995, a soil vapor extraction system operated. When the former operator requested tank case closure in August 1995, SLO DEH referred the tank case to the Regional Board since an unauthorized release of petroleum hydrocarbon constituents to ground water was suspected. Under Regional Board staff's purview, three onsite ground water monitoring wells were installed and a ground water monitoring program was instated in June 1996. In June 1998, two additional offsite ground water monitoring wells were installed to delineate the offsite extent of the petroleum hydrocarbons in ground water. During the January 3, March 24, and June 17, 1999 ground water sampling events, the fuel additive MTBE was detected in Well 3 at 0.6 micrograms per liter (ppb), 960 ppb, and 2,400 ppb, respectively. Although ground water samples were previously sampled for MTBE since April 1997, MTBE was not then considered to be a contaminant of concern. Regional Board staff suspected a second unauthorized release occurred at the subject site in late 1998 or early 1999.

In a November 2, 1999 letter, the Regional Board requested a site plan showing the current UGT system configuration, leak detection monitoring data and inventory records from 1998, and a plan for testing of soil and/or ground water near Well 3. Central Coast Tank Testing tested the tanks and associated piping on November 19, 2000. The tanks, lines, and dispensers met current state testing standards, however a fuel dispenser located near Well 3 needed minor repair and the repairs were completed. In January 2000, Ken Maloney Engineering Geologist LLC (Mr. Maloney) performed an aquifer test on Well 3. The details of the aquifer test and proposed cleanup methodology was detailed in Mr. Maloney's April 7, 2000 *Preliminary Corrective Action Plan* (CAP), August 27, 2000 *CAP*, and January 1, 2001 *CAP*

Additional Comments. Responses noted in Mr. Maloney's recent submittals addressed implementation issues noted in the Executive Officer's May 31 and November 17, 2000 letters.

The CAP proposes containment and clean up of the contaminated ground water by operating two air sparge injection wells in the vicinity of Well 3 and restarting the soil vapor extraction system. Concurrent with operation of the vapor/sparge system, ground water will be extracted from Well 3, treated using three granular activated carbon canisters, then re-injected into the aquifer via two injection wells. In the March 2, 2001 letter, Regional Board staff concurred with the proposed CAP and requested submittal of Report of Waste Discharge be filed with the Regional Board and a CAP implementation schedule submitted by March 30, 2001

Pacific Union Apartments, Inc., 1018 Pacific Avenue, Santa Cruz; Santa Cruz County [Bob Hurford (805) 542-4776]

Pacific Union Apartments, Inc. proposes to develop a multi-level, mixed-use structure, including underground parking at the corner of Pacific Avenue and Cathcart Street, downtown Santa Cruz. The extent of soil contamination, resulting from the release of petroleum hydrocarbons (PHC) from operations of a former gasoline service station at this site from 1939 through 1955, has been completely delineated. Some of the PHC-impacted soil extends under the sidewalk and street along Cathcart Street.

The limits of the proposed excavation consist of the 8,200 square foot footprint of the building, up to the sidewalks along Pacific Avenue and Cathcart Street, to a depth of approximately 16 feet. The total volume of soil to be removed during the excavation activities is approximately 5,000 cubic yards. The total estimated volume of contaminated soil at the site is 3,300 cubic yards. Of the 3,300 cubic yards of contaminated soil, approximately 2,300 cubic yards will be removed from the core of contamination during the excavation activities and hauled

offsite for disposal. Approximately 920 cubic yards will remain in place beneath Cathcart Street and the adjacent sidewalk due to the presence of public utilities under the street. Groundwater encountered during excavation activities will be pumped out of the excavation and properly disposed. Oxygen releasing compound will be added to the excavation and injected into the residual contaminated soil left in place before backfilling to promote biodegradation of dissolved PHCs remaining in groundwater at the site. Groundwater quality will be monitored by three groundwater monitoring wells to assess attenuation of the residual contamination.

STATUS REPORTS

Unocal Guadalupe Oil Field, San Luis Obispo County [Katie Anderson – 805/549-3690]

Summary - The following is a status report of Unocal's Guadalupe oil field cleanup. This information was current on April 16, 2001.

Unocal has completed approximately half of the excavations required by Cleanup or Abatement Order No. 98-38. As discussed in previous status reports, the oversight agencies and Unocal agree that remaining excavations should be put on hold until appropriate soil treatment methods have been identified and a significant volume of suitable material exists to backfill remaining excavations (Attachments 2 and 3 show completed and planned excavations). During the interim, Unocal will be evaluating the effectiveness of previous excavations and other mandated actions. These studies will help focus future characterization efforts and potential future cleanup actions.

Unocal is in violation of cleanup order excavation due dates due to the delays described above. However, staff does not plan on recommending enforcement, provided that Unocal makes satisfactory progress toward a solution to the soil treatment and disposal problem. Satisfactory progress includes completing ongoing feasibility studies, environmental review, and permitting. Once Unocal identifies soil treatment methods and completes these tasks, the remaining excavations

will be completed. We anticipate that Unocal will resume excavations in winter 2002.

Ballard Canyon/Chalk Hill Road Landfill, Santa Barbara County [Hector Hernandez 805/542-4641]

The following status report was updated on April 13, 2001.

Historical Background - Between 1948 and 1969, Santa Barbara County Public Works Department (County) leased approximately ten acres of land to operate the Ballard Canyon/Chalk Hill Road Landfill, located approximately one mile northwest of the community of Solvang, Santa Barbara County (Attachment 4). Refuse was placed in an approximately 7.5-acre area using a trench and fill method. The landfill consists of unlined cells with no leachate collection and removal system. An interim cover was placed after the landfill stopped receiving waste. Subsequently, the landowner subdivided the land and sold it for residential use. Although the precise boundaries of waste disposal have not yet been delineated, two homes were constructed adjacent to the area of waste disposal and several other homes were constructed nearby. Also, several water supply wells were placed near and adjacent to the landfill.

Most of the landfill area is directly underlain by the Careaga Formation. The Careaga Formation is composed of mostly fine to coarse sand. Beneath the Careaga Formation occurs the Sisquoc Formation, which consists of brown siltstones and shales. The contact between the Careaga and the Sisquoc formations occurs at a depth of approximately 200 to 250 feet in the landfill's eastern portion and at a depth of approximately 300 to 350 feet in the landfill's western portion. The depth to groundwater in the eastern portion of the landfill is approximately 70 feet and the depth to groundwater in the landfill's western portion is 165 feet. A total of 18 monitoring wells have been completed at the landfill as part of the ongoing site assessment. Currently, in addition to the 18 monitoring wells, 10 water supply wells are also monitored on a quarterly basis. The groundwater flow

direction within the Careaga Formation is towards the **northwest** with an average linear groundwater velocity of 280 feet per year.

In 1988, the County began assessing the landfill and has subsequently conducted a number of soil gas surveys and installed groundwater monitoring wells at and adjacent to the landfill (Attachments 5 and 6). Based on these studies, the Regional Board concluded vinyl chloride, tetrachloroethylene, trichloroethylene, cis-1, 2 dichloroethylene and benzene have impacted waters of the State beneath and adjacent to the landfill with some of these chemicals at concentrations in excess of the Basin Plan's Water Quality Objectives. Consequently, on February 11, 1999, the Regional Board's Executive Officer issued Cleanup or Abatement Order No. 99-12 (Cleanup Order No. 99-12) and Monitoring and Reporting Program No. 99-12 (MRP No. 99-12) to the County. The cleanup order directs the County to assess, monitor and remediate the landfill's environmental impacts.

Site Investigation/Cleanup Status - On December 21, 2000, the Executive Officer approved Santa Barbara County's Final Site Assessment Report concerning the Ballard Canyon Landfill. The assessment report summarizes the results of the investigation activities performed during the previous eighteen months.

Feasibility Study Addressing Closure Alternatives - In accordance with Cleanup and Abatement Order No. 99-12 concerning the landfill and State Board's Resolution 92-49, the County performed a feasibility study for corrective action to evaluate landfill closure alternatives. On March 19, 2001, the County submitted the required landfill closure feasibility study report. The study evaluates and compares the feasibility of implementing various closure alternatives, including a final cover system, complete or partial clean closure (removing the waste) and a no-action alternative.

Staff expects to complete its review of the feasibility report prior to the May Board Meeting. We are certain that an acceptable closure alternative will be implemented by the end of the year.

Groundwater Corrective Action and Interim Cleanup Plan (Gas Extraction System) - To achieve full compliance with Regional Board cleanup requirements, the County is also required to perform an additional feasibility study for corrective action addressing groundwater cleanup. The County must submit a feasibility study report addressing groundwater pollution and gas migration alternatives by April 1, 2002. However, prior to performing a groundwater cleanup study, the County is required to implement its February 14, 2000 Revised Interim Cleanup Plan, as approved by the Regional Board on March 8, 2000. The Interim Cleanup Plan proposed the installation and operation of a gas extraction system. The gas extraction system is intended to eliminate or greatly decrease the migration of landfill gases to the atmosphere and underlying groundwater. Once operational, the County plans to evaluate the effectiveness of the gas extraction system for a full year prior to studying the feasibility of the various alternatives for groundwater corrective action. Construction of the Gas Extraction System began on March 20, 2001, and is on track for completion by May 7, 2001.

Although landfill closure (e.g., final cover system) and the operation of a gas collection system are considered corrective actions, measurable benefits to underlying groundwater will likely not be observed for many months or years. Therefore, at this time, staff intends to focus primarily on ensuring that an acceptable closure alternative and gas collection system are effectively implemented.

Off-Site Pumping - In response to a Regional Board directive, the County continues to study off-site groundwater pumping in the immediate landfill vicinity. A complete summary of the evaluation results must be submitted to the Regional Board by April 30, 2001.

Larner Domestic/Irrigation Well - The Regional Board has approved the County's November 9, 2000 proposal to achieve full

compliance with the Regional Board directive to control migration of volatile organic compounds in groundwater towards Mr. Larner's 90 GPM water supply well (Larner well). It is believed that extensive pumping of the Larner well is contributing to the plume migration in the direction of the Larner property. Thus, the County proposes to control migration of the VOC plume towards the Larner well by providing Mr. Larner with an alternative source of domestic and irrigation water supply so that he may cease pumping his well. The County's proposal consists of a short-term (two-year) and long-term (permanent) alternative, as follows:

Short-term alternative:

- Replacement 30 GPM water supply well (Larner #2 well) installed on Mr. Larner's property several months ago. The Larner #2 well is connected to Mr. Larner's irrigation system and has been equipped with a generator. The County has requested PG&E to connect electrical power.
- Install a "pump & treat" system using an air stripper and a new well at the landfill. The County is confident that the pump & treat system will be on-line prior to June 2001. The treated water will be made available exclusively to Mr. Larner for irrigation purposes.
- Install an additional 30 GPM water supply well (Larner #3 well) on Mr. Larner's property by the end of April 2001.

Long-term (permanent) alternative: In accordance with a March 28, 2000 Water System Agreement signed by the County of Santa Barbara and David J. and Sheila Peterson, the County proposes to install a water production well on private property (Peterson property). According to the County's consultant, the Peterson well is expected to yield up to 400 GPM. The County believes that the Peterson well is a viable option to provide a long-term source of water for both domestic and agricultural use to not only Mr. Larner, but to all the other properties whose wells have been affected by the landfill. According to the County's proposed implementation schedule for long-term alternative water supply, operation of the Peterson well is expected by April 2003.

The County believes the two replacement water supply wells (Larner #2 and #3) plus treated water from the pump & treat system will meet Mr. Larner's short-term irrigation water supply needs (a minimum 90 GPM) during the next two years or until a permanent long-term option is available (i.e., Peterson well).

Site Access and Replacement Water Issues: During a March 30, 2001 meeting between Mr. Larner and County staff, the County formally proposed to install Larner #3 well. The proposed location is north of the eastern portion of the Landfill, on the Larner property. Installation of the Larner #3 well would include the installation of a pipeline from the well to the nearest irrigation line, and electrical services. The County also discussed its proposal to further supplement the Larner #2 well by providing the Larner vineyard with treated water from a pump & treat system. The pump and treat system will pump water from beneath the former Landfill, treat the water and deliver the water to the Larner Vineyard via a water line.

However, according to an April 12, 2001 correspondence from the County to Mr. Larner and telephone conversation between Mr. Larner and Regional Board staff, Mr. Larner is denying the County access to his property. Mr. Larner refused to sign a Temporary Entry Permit to install either of the two water systems (pump and treat and Larner #3) and indicated he will not accept treated groundwater for irrigation use. Further, in an April 18, 2001, conversation with Regional

Board staff, Mr. Larner indicated that he would only consider accepting State Water, Project Water as replacement water.

Additionally, staff learned from Mr. Larner (during April 18 conversation) that he has not and does not intend to utilize water from the Larner #2 well. Regional Board staff had been under the impression that Mr. Larner had been utilizing water from the Larner #2 well. In fact, several months ago staff advised Mr. Larner and his attorney via telephone and formal correspondence to maximize the use of the existing replacement well (Larner #2 well) and only pump the original Larner well if and when absolutely necessary.

Consequently, the County has postponed the installation of Larner #3 well until the County receives a signed Temporary Entry Permit from Mr. Larner. Nevertheless, the County will proceed with the installation and operation of the proposed pump and treat system. However, a pipeline from the pump and treat system will only be constructed up to Mr. Larner's property line. It will be ready for connection to Mr. Larner's property if and when Mr. Larner agrees to accept the treated water and signs the Temporary Entry Permit allowing the County access to his property.

Following is a table depicting Mr. Larner's stated water needs (short term and long-term) versus how the County intends to comply with the Regional Board's directive to control migration of VOC plume towards the Larner water supply well.

Mr. Larner's Stated Water Needs	Water Supply (presently available)	Short-Term (present) Water Need to irrigate 32.9-acres	Long-Term Need (w/in 2 years) to irrigate 87.9-acres
	Larner Well (90 GPM) + 7.5 acre-foot reservoir	120 GPM + 7.5 acre-foot reservoir	320 GPM + 7.5 acre-foot reservoir
County's	Water Supply (presently available to Mr. Larner)	Short-Term Proposal (Available by *June 1, 2001)	Long-Term Proposal (Available w/in 2 years)

Proposal	Larner #2 well (30 GPM)	Larner #2 well (30 GPM) + Larner #3 well (30 GPM) + Pump & Treat well (30+ GPM) = 90+ GPM	Peterson Well (Up to 400 GPM)
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* *This date Assumes that Mr. Larner agrees to accept the replacement water being offered by the County and signs the Temporary Entry Permits allowing site access.*

Plume Modeling: During the March 23, 2000 Regional Board Meeting, Mr. Larner asked that the County be required to perform groundwater modeling of the VOC plume and provide a plume model for his review. Staff has informed Mr. Larner that the County has satisfactorily completed its site assessment activities for the project's current needs. The lateral and vertical extent, and degree of groundwater degradation is delineated to a level that allows interim corrective action measures (as outlined above) to be effectively implemented. If a higher degree of plume understanding is needed as final corrective action decisions are being made, the County will be required to perform more detailed modeling.

Pending Litigation – The lawsuit filed by the Dries family against the County has recently been settled. Additionally, the County is currently in settlement negotiations with five homeowners represented by Mr. Richard Kravetz. It appears that a settlement will soon be reached. Thus, the only other lawsuit pending is the one filed by the Larner family, represented by Mr. John Dorwin.

On April 13, 2001, Mr. Larner's attorney (plaintiff) issued a Subpoena to Regional Board staff requesting appearance in court as witnesses concerning litigation between Mr. Larner and the County.

The court trial date is tentatively scheduled for June 11, 2001.

Summary

Significant progress has been made at this site during the last year. At this time, Regional Board staff believes that the County has adequately delineated the vertical and lateral extent of groundwater degradation. Staff's

position is that the County is making a good faith effort towards meeting Mr. Larner's immediate and long-term water needs.

Staff believes this information clarifies Mr. Larner's immediate and long-term water needs. Staff will be available to answer any other questions during the Board meeting. Staff will continue to keep the public and the Regional Board apprised of progress at the site via regular status reports.

Underground Tanks Summary Report dated March 30, 2001 [Jay Cano 805/549-3699]

See Attachment 7.

Regionwide Reports

Regional Monitoring [Karen Worcester 805/549-3333]

Monitoring

Karen Worcester attended a statewide meeting of the AB411 Beaches Monitoring Subcommittee, which was held for the first time in our Region (City of Santa Cruz) and was attended by several municipalities from our Region. The Beaches group is determining strategies for monitoring, posting, closing and reopening beaches associated with spills and elevated ambient levels of pathogen indicator organisms. Each County Health Department present described their activities related to beach monitoring, and summarized status of beach closures, spills and other related information. Much of the discussion at this meeting was focused on new technologies for monitoring for presence of pathogens. Chris Scholin of the Monterey Bay Aquarium

Research Institute described methods he is developing for detection of toxic phytoplankton that has applications for pathogen detection. This involves real-time monitoring for presence of specific DNA using fluorescent markers.

The CCAMP team is conducting spring Rapid Bioassessment monitoring for benthic assemblages in the Santa Barbara County area. Thirty sites are being sampled for analysis by the California Department of Fish and Game Aquatic Bioassessment Laboratory. CDFG spent a day in the field with our team, to ensure that we are using the protocol consistent with their field staff. We have also been preparing for startup of Coastal Confluences monitoring, which will include monthly monitoring of thirty creek mouths on an ongoing basis.

Karen gave a presentation at a conference in Asilomar sponsored by U.S. EPA and Tetrtech on Environmental Technology Verification. The intent of this conference is to collect information from agencies conducting work in the "field" related to how new technology is being used, and what new technology is needed. They then "verify" or test this equipment for reliability, accuracy, etc. The meeting was attended by a number of equipment vendors so that they can understand more about the needs of their clientele. Our program is particularly interested in finding inexpensive, deployable devices for measurement of dissolved oxygen, and devices for measurement of permeability of creek gravels (as a measure of sedimentation). We are also interested in some of the new DNA based technology for detection of toxic phytoplankton and pathogens.

Karen attended a Monitoring and Assessment Roundtable meeting. Discussion continued on the SWAMP program's definitions of "regional" versus "site-specific" monitoring. State staff are intending that Regions have control over the site specific component, but that the regional component will use a consistent study design statewide. Because the State is anticipating the regional component to use a "EMAP" style approach, where sample sites are selected randomly (and therefore because of access issues can only be

monitored once). Many regions are interested in more frequent sampling for conventional pollutants. If the budget stays at its current level (\$3.6 million) all funds will be directed to the regions for their own purposes. When the budget is increased, the allocation between the two monitoring components will be an important point of discussion. We developed a proposal in collaboration with Karen Taberski of Region 2 for allocation of the Regions' funds next fiscal year, using stream miles, acreage, population, coastline miles, and other weighting factors. This will be considered for adoption at the next meeting.

Data Management

Karen and Dave Paradies spent a morning training California Department of Fish and Game staff on use of the CCAMP data management system. CDFG is Master Contractor for the Surface Water Ambient Monitoring Program (SWAMP) and will be using our system (at least until the SWRCB statewide system is available) as a data entry front end for the program.

Basin Planning

Karen and Howard Kolb met with EPA staff to review status of the Triennial Review list and to learn more about new EPA guidance and trends in water quality standards. In particular, we discussed pathogen indicators, ammonia, arsenic, aquatic life criteria, nutrient criteria and biocriteria. The new "Alaska Rule" approval of all Basin Plan standards before they become effective.

We anticipate hiring Angus Lewis as the new geologist for groundwater planning. He has worked with USGS in the past on groundwater recharge in intermittent streams. He has a Bachelor's Degree in Mathematics from Cal Poly and a Master's degree in geology from San Jose State University.

TMDL Update [Lisa McCann 805/549-3132]

Regional Board staff in the Watershed Assessment Unit have been working since September 1999 on development and

establishment of Total Maximum Daily Loads (TMDLs) for waterbodies in high priority watersheds (priorities are based on the existing "303(d) List" of impaired waters and the Watershed Management Initiative). In general, a TMDL is developed and established by a phased process which includes assessing point and nonpoint sources of the pollutant, determining the contribution from each source, determining appropriate load reductions for each source, implementing a program to achieve load reductions, adoption of a basin plan amendment, and monitoring to determine attainment of water quality standards.

Federal Law requires a TMDL to include a problem statement, numeric targets, source analysis, and load allocations. Federal and State Law require the Basin Plan be amended to include the TMDL, the implementation plan and monitoring plans. Public participation is critical during development of the TMDL, development of the implementation plan, adoption of the basin plan amendment, implementation of control actions, and monitoring for effectiveness. Region 3's approach is to simultaneously develop TMDLs for all waters in a given watershed, listed for the same pollutant, as a "TMDL Unit." For example, the Morro Bay Watershed Siltation TMDL refers to TMDLs for Chorro Creek, Los Osos Creek and Morro Bay, all on the 303(d) list for siltation. Occasionally a "TMDL Unit" is defined as a subwatershed because only one or two waterbodies are on the 303(d) list for a particular pollutant (e.g., Chorro Creek Metals).

Current activities are described briefly below.

San Luis Obispo Creek Watershed Nutrients- The Draft TMDL was submitted to USEPA on June 30, 2000. USEPA plans to establish this TMDL through the federal process within a year of June 30, 2000. Staff has developed a monitoring program to refine the allocations in the draft document and is developing an implementation plan.

Morro Bay Watershed Nutrients and Siltation- The Draft TMDL Reports were submitted to USEPA by June 30, 2000. The Siltation TMDL was modified in response to

comments submitted by USEPA and members of the public in January 2001. The Nutrient TMDL will be modified in response to comments from USEPA and members of the general public in March 2001. They will both be finalized and presented to the Board for adoption as Basin Plan amendments in winter of 2002.

Morro Bay Watershed Pathogens- The TMDL Report is currently being developed and the first draft is scheduled for completion by December, 2001.

Las Tablas Creek- Nacimiento Reservoir Metals- The Draft TMDL Report was submitted to USEPA on June 30, 2000, and is scheduled to be revised in July 2001. This TMDL is scheduled to be presented to the Board for adoption as a Basin Plan amendment in winter 2002.

Chorro Creek Metals- The Draft TMDL Report was submitted to USEPA on June 30, 2000, and revised in April 2001. This TMDL is scheduled to be presented to the Board for adoption as a Basin Plan amendment in winter 2002.

Salinas River Watershed Siltation- A problem statement was completed for this TMDL on June 30, 2000. A contract for additional monitoring, assessment and analysis was established in May 2000. Development of the TMDL will proceed throughout this fiscal year. The Draft TMDL Report is scheduled to be submitted to USEPA by June 30, 2002.

Pajaro River Watershed Nutrients- Development of this TMDL was initiated last fiscal year and will continue through this fiscal year. A first draft of the TMDL Report was scheduled to be submitted to USEPA by June 30, 2001. A preliminary draft will be prepared by June 30, 2001 but additional effort will be needed through June 2002.

Pajaro River Watershed Siltation- Development of this TMDL was initiated last fiscal year. Regional Board staff attempted to establish a contract for additional monitoring, assessment and analysis in June 2000. This contract was not executed (due to watershed coordination issues and administrative delays)

as planned. Therefore, development of this TMDL will proceed throughout this fiscal year and into next year. A preliminary draft TMDL Report is scheduled to be prepared by June 30, 2002.

Valencia and Aptos Creek Siltation, San Luis Obispo Creek Watershed Pathogens and Priority Pollutants, Morro Bay Watershed Priority Pollutants, and Morro Bay Metals- A review of existing information and sampling plans to collect additional information was recently or will soon be completed for these TMDLs. Sample collection and preliminary analysis of data collected will proceed throughout this fiscal year and into next year. Draft TMDL reports will be completed at the end of fiscal year 2001-2002 and into fiscal year 2002-2003.

Salinas River Watershed Pesticides, Nutrients and Salinity, Pajaro River Watershed Metals (Clear Creek and Hernandez Reservoir), Pesticides and Oil and Grease (Watsonville Slough)- Preliminary literature review and identification of existing data has been initiated for these TMDLs and development of the TMDLs will proceed throughout the next couple of years.

Administrative Reports

Emergency, Abandoned, and Recalcitrant Account Fund [Jay Cano 805/549-3699]

As follow-up to the March 22-23 Board meeting, Regional Board staff asked State Board staff whether Local Oversight Program (LOP) agencies may nominate sites for the Emergency, Abandoned, and Recalcitrant Account Fund. Regional Board staff learned that LOP agencies may nominate sites, although the State Board's letter is addressed to Regional Boards and Local Implementing Agencies (different than LOP's). As a result, Regional Board staff has asked Santa Barbara County whether it wants to add sites to the EAR Account list and the County stated it had no nominations.

Petition of Ragged Point Inn and Resort [Roger Briggs 805/549-3140]

A petition for dismissal of the Mandatory Penalty Order No. 00-95 for the Ragged Point Inn was sent to the State Board. After careful consideration, the State Board has dismissed the petition as it failed to raise substantial issues appropriate for review. The petition was dismissed on April 4, 2001.

Duke Energy Moss Landing Power Plant Mitigation Fund [Paul Jagger 805/549-3140]

The Board adopted the NPDES permit for Duke's Moss Landing Power Plant at the October 27, 2000 meeting in Seaside. Finding number 50 of that permit required Duke to deposit \$7 million into a dedicated account for funding Elkhorn Slough enhancement projects. The funds were due 120 days after start of construction for the new power generation units. Construction started late December 2000. At this writing (4/25/01) we have just received confirmation that the funds have been wired by Duke and received into the new account set up for the mitigation fund. The fund is a joint account with the Elkhorn Slough Foundation officers and Regional Board Executive Officer as co-signatories. Signatures from both organizations are required to disburse funds for mitigation projects. Funds will be disbursed to implement actions in an Elkhorn Slough Enhancement Project Plan, which is now being developed by an Advisory Committee as specified in finding number 50 of the permit. When the Advisory Committee finishes the Plan, the Board will act on the plan at a public meeting after receiving public comments.

Supplemental Environmental Projects [Roger Briggs 805/549-3140]

Our region has been very creative with the use of Supplemental Environmental Projects and mitigation projects to get greater benefit out of enforcement and permitting situations than is typical. However, these projects require staff attention that is not separately budgeted. Nevertheless, we created a position out of our administrative staff to assist with this work as

well as with all our other contract administration work (formerly all done by technical staff). We have a system to track these projects. Cyndee Jones operates the database (see Attachment 8). Cyndee enters new projects, with due dates. Every week, she reviews the milestones and due dates. If there are projects that have not met milestone due dates, she reviews the contract file and meets with the appropriate technical staff to get the follow up information. The database is not perfect, but is getting more complete all the time.

PRESENTATIONS AND TRAINING

Shanta Duffield: HAZWOPER training (24 hour) - March 12-14th, Customer Service Training - April 4th, CalPers Retirement Planning Workshop - April 5th, Intermittent Stream Workshop - April 11-12th. Dominic Roques: Customer Service Training - April 4th. Chris Rose: Customer Service Training - April 4th. Larry Harlan: Customer Service Training - April 4th, Effective Presentation Training - April 18th and 19th

Angela Carpenter and Larry Harlan: (1) Presentation to Llagas Creek Watershed Working Group about TMDLs and (2) Presentation to Pajaro Watershed TMDL steering committee about TMDLs - March 27th and 28th, respectively

Mark Angelo: (1) City of Scotts Valley - San Lorenzo Sediment TMDL Outreach and (2) Atascadero - Presentation on Citizen Monitoring and TMDLs at Citizen Monitoring Workshop

Julia Dyer attended on March 23rd the "Watershed Planning Symposium for Steelhead Trout Habitat and Water Quality Goals in Coastal Southern and Central California. This public symposium reviewed the development of watershed plans and assessments for multiple goals, especially enhancement of steelhead trout habitat integrated with improvements of water quality conditions.

As part of public outreach efforts, Jay Cano gave a presentation to the San Luis Obispo County Health Commission and to San Luis Obispo County Board of Supervisors regarding the problems with MTBE throughout San Luis Obispo County. Jay also provided a brief interview to the local television news media as follow-up to a settlement with Texaco regarding an illegal discharge to Prefumo Creek in San Luis Obispo County.

Jay also gave a lecture to a Civil Engineering Professional Practice Course at Cal Poly regarding ethics in engineering. Jay has been volunteering his time for this lecture about once a year since 1993. Lecturers for this course are provided by a group of local professionals who volunteer their time through the American Society of Civil Engineers.

Michael Higgins attended the following events: 3/7/01 Wetlands Recovery Project Manager's Group workshop to rank projects for funding; 3/26 - 29/01 Basic Supervision Training Class.

Sorrel Marks attended the annual California Water Environment (CWEA) Training Conference, April 17-20, 2001. CWEA is this state's section of the national Water Environment Federation, a professional association dedicated to research, development and education in the field of water quality protection and wastewater treatment.

On May 3, John Robertson spoke at the California Hazardous Materials Investigators Association Conference, held May 1-4, 2001 in Shell Beach, California. John presented an overview of the Avila Beach Clean-up Project.

Julia Dyer, Sue Gerdson, Carol Hewitt, Sandra Holgate, Cyndee Jones, Marilyn Knollenberg, and Stacy McTeer participated in Word 2000 Training on April 13, 2001. Carol Hewitt, Sandra Holgate and Marilyn Knollenberg participated in Customer Service Training on April 4, 2001.

On May 8th and 9th Land Disposal Unit staff attended training sessions at the Solid Waste Association of North America's Western Regional Symposium and Trade Show held in San Luis Obispo.

Associate Engineering Geologist Lou Blanck presented his paper, "Geologic Structure of the Beaumont-Banning Area, California from Gravity Profiles," on April 11 at the annual meeting of the Cordilleran Section of the Geological Society of America in Los Angeles. He also attended a field trip to the urban oil fields of Los Angeles as part of the conference.

Associate Engineering Geologist David Schwartzbart represented the Board at the Judkins Middle School Career Fair in Paso Robles and made two guest lectures at the Cal Poly class "Introduction to Natural Resources Management."

ATTACHMENTS

- 1) Letter from Monterey County Administrative Office dated January 3, 2001
- 2) Unocal Guadalupe Site Map/Status of Completed CAO Excavations
- 3) Unocal Guadalupe Site Map/Status of Remaining CAO Excavations
- 4) Ballard Canyon Site Location Map
- 5) Ballard Canyon Location of Existing Monitoring Wells Map
- 6) Ballard Canyon Location of Existing Landfill Gas Monitoring Wells
- 7) Underground Tanks Summary Report dated March 20, 2001
- 8) Supplemental Environmental Projects Listing